



US006033451A

United States Patent

[19]

Fish et al.

[11] Patent Number: 6,033,451

[45] Date of Patent: Mar. 7, 2000

[54] VACUUM CLEANER BAG DOCKING ASSEMBLY

[75] Inventors: William G. Fish, Gulfport, Miss.; Charles F. Malone, New Bern, N.C.

[73] Assignee: Oreck Holdings, LLC, Cheyenne, Wyo.

[21] Appl. No.: 09/107,710

[22] Filed: Jun. 30, 1998

[51] Int. Cl.⁷ A47L 5/28

[52] U.S. Cl. 55/374; 55/376; 55/377; 55/378; 55/DIG. 2; 15/350; 15/351

[58] Field of Search 55/374, 376, 377, 55/378, 382, DIG. 2; 15/350, 351

[56] References Cited

U.S. PATENT DOCUMENTS

- | | | | |
|-----------|---------|---------------------|--------|
| 4,381,192 | 4/1983 | Grimard | 55/376 |
| 4,539,026 | 9/1985 | Kuplas | . |
| 4,591,369 | 5/1986 | Stewart, Sr. et al. | . |
| 4,678,486 | 7/1987 | Jacob et al. | . |
| 4,738,697 | 4/1988 | Westergren | . |
| 5,028,245 | 7/1991 | Stein et al. | . |
| 5,064,455 | 11/1991 | Lackner | . |
| 5,089,038 | 2/1992 | Kopco et al. | . |

- | | | | |
|-----------|---------|------------------|--------|
| 5,092,915 | 3/1992 | Lackner | . |
| 5,226,941 | 7/1993 | Uibel et al. | . |
| 5,230,724 | 7/1993 | Marafante et al. | . |
| 5,464,460 | 11/1995 | Bosses | . |
| 5,544,385 | 8/1996 | Jailor et al. | 55/376 |
| 5,688,298 | 11/1997 | Bosses | . |
| 5,820,643 | 10/1998 | Lieneluke et al. | 55/376 |

Primary Examiner—David A. Simmons

Assistant Examiner—Minh-Chau T. Pham

Attorney, Agent, or Firm—Seed and Berry LLP

[57] ABSTRACT

For use with vacuum cleaner bags of the type having a substantially rigid collar surrounding the bag opening, and with vacuum cleaners of the type having a dirty air outlet nozzle, a vacuum bag docking assembly is shown and described. The assembly incorporates an anchor member having a central opening for closely receiving the dirty air outlet nozzle. The assembly also incorporates a mounting member which engages the collar on the vacuum bag to secure the bag to the bag mounting member. The bag mounting member is pivotally connected to the anchor member, and moves between a loading position in which the bag can be inserted or removed from the mounting member, and a working position in which the bag opening engages the dirty air outlet nozzle.

14 Claims, 6 Drawing Sheets

